

Form C-100

UDOT Construction

ContractChange Order

Instructions for Completing Acrobat Form:

This Change Order form was created using Acrobat Form Fill and can be completed, saved and printed using the 'Free' Acrobat Reader. Simply Click in the 'Project No.' box and tab to each field or click in any field and type in the information.

Highlights:

- Date field requires the date format: 01/01/2000
 - Make sure you use the 4 digit year format
- Monetary fields are formatted as such. Key in the number with decimal and the system will add \$ sign and commas.
- Drop down selection boxes for quick access to codes and units of measure.
- Self calculating fields for itemized list.
- Link to Construction Manual of Instruction, Chapter 10.16:Change Orders
 - Click on the form number in the upper right corner.
 - Use your browsers 'Back' button to return to the form.

The signature page contains **no** form fields and is included for printing purposes only.

[Go to Form](#)

C-100 REV. 5/98

TOTAL NET CHANGES (DOLLAR)

☐ **STEWARDSHIP** ☒ **NON-STEWARDSHIP** (✓ ONE) **NOTE:** Non-Stewardship approving for Division Administrator. Stewardship approving for Engineer for Construction.

COMMENTS (NON-PARTICIPATION):

Approved for Federal Participation

Approved as Federal Non-Participating

Date: / /

10.16 CHANGE ORDERS

Change Orders are required but not limited to, any of the following existing conditions: Specification change, change of condition, changes in D.B.E. commitment, extension of contract time, changes in site condition, additional work that must be completed by the contractor that cannot be tied to an original bid item, a value engineering proposal that will change the price of the contract, overrun or underrun of the contract according to [Specification 104.3.4](#).

Prepare change orders to be self-explanatory. The approving authorities are not familiar with the aspects of the work as the project engineer is and must understand the intent, governing specifications and cost analysis with a minimum of individual research.

Completed attachments, cost analysis, authorization to proceed and any other documentation applicable to the change order must be attached to the change order sent to the approving authorities.

No Change Order work will be started unless there is an approved copy of the Change Order in the project files; with the following exception: in case of an emergency requiring the work to be started before the Change Order could be written and signed, an Authorization to Proceed ([Form C-107](#)) can be prepared. The Authorization to Proceed form must be verbally approved and signed in accordance with [Policy and Procedure 08B-10](#) before work begins. This form will show an estimate of the anticipated costs involved. Care should be made to make certain the estimate is as accurate as possible. The Authorization to Proceed form does not eliminate the need to prepare a Change Order, and it must be attached to the Change Order through the approval process.

An emergency is: Work that cannot wait because of possible damages occurring to other parts of the contract, workers in the area or the public.

Change Orders are processed following the guidelines set forth in the Stewardship Agreement between the Utah Department of Transportation and the Federal Highway Administration. UDOT has the responsibility to approve Change Orders on stewardship and recommend approval for non-stewardship projects. This approval or recommendation determines if the Change Order is Federal participating or Federal non-participating. Change Orders on non-stewardship projects are approved by the FHWA. Non-stewardship projects are denoted with an asterisk (*) prior to the project number.

Written approval is required from the Region Construction Engineer (Stewardship Projects) or Federal Highway Administration (Non-Stewardship Projects) prior to proceeding with any change or extra work which would alter the terminal, scope, or

character of the project; or work that would fall into the “major category”, except in emergency or unusual situations as provided in 23 CFR 635.121(b).

1. In addition, the following types of changes or extra work are to be considered major, requiring Region Construction Engineer or FHWA approval or authorization to proceed before the work begins:
 - a. Revisions in geometric design (alignment, and/or grade) which affect the design speed, require additional right-of-way, change the structural design of a major structure, or increase/decrease the cost of a major contract item by more than 25 percent of the item.
 - b. Revisions of pavement structural section.
 - c. Revisions in conflict with approved standards.
 - d. Revisions involving addition, deletion, or relocation of bridges.
 - e. Any change requiring additional right-of-way or a revision in controlled access, including changes to median openings. On uncontrolled access projects, changes in access locations will be considered minor as long as the change does not violate the UDOT's Regulations for the Control and Protection of State Highway Rights-of-Way.
 - f. Any changes related to type or quality of materials to be furnished and incorporated into the finished project.
 - g. Any changes in specifications or specified method of processing.
 - h. Revisions which will affect safety or operation of traffic.
 - i. Changes which will result in any feature of design or construction which may be contrary to the intent of the Environmental Impact Statement or alter any feature which may have influenced the actual content of the EIS.
 - j. Any change resulting in adjustment of unit bid prices or agreement to perform work by force account methods; except,
 - “ Adjustments in negotiated unit prices of items specifically covered by approved Standard Specifications (i.e., the adjustment of the lump sum

price bid for concrete structures [Specification 506.5.2](#)).

“ Any change and/or extra work that does not exceed a total cost of \$25,000 and does not come under the above definition of “major”.

2. Minor changes should be handled by Change Order. Region Construction Engineer (Stewardship) and FHWA (Non-Stewardship) approval is required, but may be obtained after the work has been completed.
3. Requirement of 23CFR 635.121(f), “Proposed changes and extra work involved in nonparticipating operations that may affect the design or participating construction features of a project shall be subject to review and concurrence by the division administrator”. When this occurs, provide the information to the Federal Highway Administration.
 - a. Work such as construction of a maintenance stockpile, which does not affect Federal-aid participating features would be outside of this requirement. However, an informational copy of the Change Order should be transmitted to the FHWA.
4. Changes similar to those discussed in f, g and j above which constitute deviation from the scope and intent of the specifications, will not be approved unless at least one of the following conditions is satisfied:
 - a. The project cannot reasonably be constructed as specified.
 - b. A substantially equal product can be obtained at a savings to the project.
 - c. A superior product can be obtained at the original contract prices.

Use the following guidelines in the preparation and submission of Change Orders. Prior to preparing the Change Order, the Project Engineer will discuss the intent, scope and estimated cost of the required extra work with the Project Manager.

UDOT CONSTRUCTION CONTRACT CHANGE ORDER ([Form C-100](#))

- A. Enter the project number(s), location, contractor's name, Change Order

number, charge ID number and contract date in the appropriate places at the top of the form.

1. Indicate all project numbers and the location on the Change Order as they appear in the original contract.
 2. The contract date is the date on the Notice to Proceed letter.
- B. Enter the Group, Alpha and Originator Codes ([Figure 10.1](#)) that best describe the reason for the Change Order. These codes are used to track and analyze the cause for Change Orders.
- C. If the work performed under the Change Order requires an extension of contract time, enter the extended time in the working days or calendar days box.
1. Provide justification to support the time extension on Attachment A, [Form C-101](#).
- D. Contract Monies Allocated to Date boxes, enter the original contract amount and the current contract amount.
1. The current contract amount is the original contract amount plus all approved Change Orders to date, including the one being submitted. Assume the one being submitted is approved until notified otherwise.

FIGURE 10-1

ALPHA CODE DESIGNATION OF CHANGE ORDERS	
GROUP 1	ANTICIPATED SUPPLEMENTAL CONTRACT WORK
A	Assist. to State (Test Piling, Fill Settlements, Surveying, Test Borings)
B	Overruns/Underruns
C	Disadvantaged Business Enterprises (FHWA Program)
D	Environmental Controls (Erosion/Biotic Protection)
E	Railroad Inspection & Flagging
F	Research Projects, Product Testing and Reviews
G	Right-of-Way Obligations (Utilities/Driveways/Walls, Etc.)
H	Temporary Traffic control (Signs, Signals, Flagging, Striping & Detours)
I	Miscellaneous Minor Supplemental Work (As Listed in Detailed Estimate of Cost)
J	Partnering
GROUP 2	GENERAL ADDITIONS/DELETIONS/ADJUSTMENT
A	Management Decisions/Policy Revisions/Project Accelerations
B	Changes/Revisions in Standard Plans & Details
C	Hydraulics/Drainage Changes
D	Landscaping Changes, Including Irrigation
E	Product/Materials Specification Changes
F	Roadway Structural/Geometric Revisions
G	Roadway Lighting/Signals/Graphics
H	Structure Revisions
I	Miscellaneous Adjustment of Costs/Time Accrued Interest on Uncontested Delayed Payments Change in Asphalt binder Content Adjustments for Price Index Fluctuations Liquidated Damages
GROUP 3	UNFORESEEN OCCURRENCES/DIFFERING SITE CONDITIONS
A	Accidents/Spills & Hazardous Materials
B	Acts of Nature (Rain, Storms, Floods, Earthquakes, Etc.)
C	Buried Man-Made Objects/Underground Utilities
D	Constructed Embankment/Fills/Slope Failures
E	Regulatory Agency Requirements/Actions
F	Termination of Contract Standard Specifications, 108.10 or 108.11
G	Unanticipated Geotechnical Conditions
GROUP 4	DIFFERENCES/CONFLICTS IN THE CONTRACT DOCUMENTS
A	Right-of-Way Delays
B	Design Error/Omission/Conflict
C	Specification Error/Omission/Conflict
D	Construction Error/Omission Conflict

E	Inadequate Traffic Clearances (Vertical/Horizontal)
GROUP 5	SETTLEMENT OF CLAIMS AND DISPUTES
A	Interpretation of Specifications
B	Interpretation of Plans/Drawings
C	Contract Time
D	"Changed Conditions"
E	Delays in the Work
F	Negotiated Board of Review/Arbitrator Settlements
GROUP 6	COST REDUCTION INCENTIVE PROPOSALS/ALTERNATIVE DESIGN
A	Structures Design
B	Traffic/Roadway Geometrics
C	Roadway Design, Drainage, Etc.
D	Materials & Material Sources
E	Construction Procedures
F	Temporary Traffic Controls, Detours, Falsework Openings

ORIGINATOR CODE DESIGNATIONS (Division/Section/Position that could have taken some action to prevent need for Change Order)			
1	Design (UDOT/Consultant)	8	Construction Division
2	Traffic	9	Local Government
3	Structures	10	Consultant
4	Materials	11	Contractor
5	Right-of-Way	12	Environmental
6	Project Engineer	13	Utilities
7	Maintenance	14	Project Manager

- E. Check the appropriate basis of payment box that applies to the Change Order.
1. Original Contract Unit Price is **U**marked when the items and unit prices included in the Change Order are in the original contract.

2. Agreed Unit Price is **U**marked when the items in the Change Order are not found in the original contract.
 - a. If the agreed unit price exceeds 10% of the previous year's Average Unit Bid Price, an independent cost analysis must be completed by the Project Engineer to justify the agreed unit price. Do not use the cost analysis submitted by the contractor in place of a project engineer's independent cost analysis.
 - b. Bid abstracts, prices used on another project or Change Order can also be used to justify the agreed unit price.
3. Force Account is **U**marked when the work being performed is to be done on an actual cost basis.
 - a. Use when the Contractor and the Project Engineer cannot agree on a basis of payment or an agreed unit price
 - b. Contractor & Project Engineer will prepare independent cost analysis' to be used for negotiating an equitable and reasonable unit price
 - c. When negotiated unit price is less than \$5,000.00, unit of measure will be Lump Sum
 1. Agreed Lump sum amount must be within 10 percent of Project Engineer's cost analysis or
 - d. Force Account method will be used for payment
4. Specification Change is **U** marked when a change in the contract specifications, plans or Department standards is needed to perform the work of the Change Order.

F. Enter the following information:.

1. All items required to complete the work.
 - a. Items not included under the original contract should carry the item description as shown in the Standard Specification, Supplemental Specifications, Special Provisions or previous year's Average Unit Bid Prices when possible.

2. Estimated quantity for each item listed.
 - a. Show decreases in brackets (\$0.00).
 3. Unit of measurement for the item(s) listed.
 4. Enter the agreed upon unit price for the item(s) listed.
- G. The form will automatically calculate the extension of amount increase/decrease.
- H. The contract's total net dollar changes will calculate automatically.
- I. The Project Engineer will fax a copy of the Change Order to Project Manager, Region Construction Engineer, and Local Governments (when applicable) prior to obtaining the contractor's approval. Change orders do not need to be faxed to the FHWA prior to the Contractors approval, but Major changes need prior written approval of the FHWA Construction Engineer (Non-Stewardship Projects)
1. The Project Manager, Region Construction Engineer, and Local Governments Project Manager will review the Change Order in a timely manner to determine if it is in accordance with the contract, funding, Standard Specifications and contains adequate documentation to support the change. They will verbally notify the Project Engineer of their findings and recommendations.
- J. After receiving verbal approval to proceed, the Project Engineer will obtain the signature from the Contractor's authorized representative on two Change Orders, with their official title and date.
1. The Contractor may make a copy of the Change Order. They should be informed the copy is for record keeping purposes only and no work on the Change Order can begin until approval is given by the Project Engineer.
- K. If there is Local Government involvement, the Project Engineer will obtain the signature and official title of their authorized representative.
- < L. The Project Engineer will approve the Change Order if the amount is <\$25,000 by placing a **U** mark in the Approved (Up to \$25,000) box. If the amount is >\$25,000 or a specification change, the Project Engineer will place a **U** mark in the Recommended for Approval box, sign and date two Change Orders.

1. When the Project Engineer “approves” the Change Order, the work can begin and payments made to the Contractor. The Project Engineer forwards the two originals of the Change Order to the Project Manager.
2. When “Recommended for Approval” by the Project Engineer, two originals are forwarded to the Project Manager. NO WORK COVERED BY THE CHANGE ORDER IS TO START UNTIL THERE IS AN APPROVED COPY IN THE PROJECT FILES.

M. The Project Manager will forward the Change Order to the Region Contracts Specialist. The Region Contract Specialist will make the required record and check the Change Order for supporting documentation and mathematical accuracy.

1. Upon receiving the Change Order, the Region Contracts Specialist completes and maintains the Region Change Order Record. When they have verified the Change Order has acceptable supporting documentation and is mathematically correct, they date and initial the Change Order. If the Change Order does not have sufficient documentation to support the change or is not mathematically correct, it is returned to the Project Engineer.
2. The Region Contract Specialist will contact Program Development for State and Federal-aid projects when the accumulated total of all Change Orders is >\$100,000. The Region Contract Specialist will place a **U** mark in the Program Development box indicating the contact was made and funds are available.
3. The Region Contract Specialist will obtain approval from the Region Operations Engineer for all Contract Maintenance projects. The Region Contract Specialist will place a **U** mark in the Region Operations Engineer box indicating the contact was made and funds are available.
4. The Project Manager will sign and date the Change Orders on the line provided, “Recommended for Approval” and forward to the Region Director through the Region Contract Specialist. If the Change Order is for a Specification Change, forwards the Change Order to the Region Construction Engineer through the Region Contract Specialist Refer to step N below if the

Project Manager has been delegated by the Region Director to approve change orders.

- N. The Region Director/Project Manager signs and dates the Change Order and returns it to the Region Contracts Specialist.
- O. The Region Contract Specialist obtains approval (participating or non-participating) from the Region Construction Engineer for Stewardship Projects or the Federal Highway Administration for Non-Stewardship Projects.
 - 1. When all required signatures are obtained, the Region Contract Specialist forwards one original executed of the change order to the Contracts, Estimates and Agreements Manager and one original executed to the Project Engineer.
 - 2. The Project Engineer forwards the original executed to the Contractor.
 - 3. The Contracts, Estimates and Agreements Managers makes the necessary record and retains the original executed in the project files.

NOTE: If any approving authority disagrees with or does not understand the Change Order, it will be sent back to the Project Engineer for further explanation and justification.

ATTACHMENT A

(Form C-101)

Attachment A is completed and attached to the Change Order.

- A. Enter the following information:
 - 1. Change Order number..
 - a. Make sure the Change Order number and the number on Attachment A are the same.
 - 2. Number of pages associated with Attachment A (1 of 1).
 - a. If Attachment A is more that one page in length, place the appropriate page number on the top of each page.

3. Project number(s) and location as they appear in the original contract.
4. Detailed explanation of reason(s) for the Change Order.
 - a. Remember, anyone reading this explanation should be able to understand why this change was necessary.
5. A cost analysis is required for Agreed Unit Price Change Orders when the unit price of the item(s) exceed 10% of the previous year's Average Unit Bid Price or when the change requires the work to be performed by Force Account. Examples of two acceptable methods of preparing a Cost Analysis are shown in [Figure 10-2](#) and [Form C-103](#).
 - a. If a cost analysis is not required for an Agreed Unit Price Change Order, place the following statement in this section: "Unit price(s) are within 10% of the previous year's Average Unit Bid Price(s)".
 - b. A cost analysis for an Agreed Unit Price change can also be justified by comparing the unit prices with other projects. Use contract bid abstracts or reference to other projects or approved Change Orders for similar type work.
 - c. When using a Cost Analysis, attach support/justification of the hours used for labor and equipment. Also documentation to support materials costs.
6. If the Change Order requires a contract time adjustment, write a detailed explanation justifying the change.
 - a. Address extensions of contract time when they occur, do not wait until the end of the project.
7. Document all individuals coordinated with for the Change Order. This will include names, titles and dates of the discussion.

ATTACHMENT B

(Form C-102)

Attachment B is required when there is a change of specification. It must accompany the Change Order through the approval process.

- A. Place the Change Order number in the space provided at the top of the form.
 - 1. Make sure the Change Order number and the number on Attachment B are the same.
- B. Enter the number of pages associated with Attachment B (1 of 1).
 - 1. If Attachment B is longer than one page in length, place the appropriate page number on the top of each page.
- C. Enter the project number(s) and location as they appear on the original contract.
- D. If there is not a Standard Specification with the requirements to rectify the problem addressed on the Change Order, a Special Provision is written by the Project Engineer on Attachment B.
 - 1. Special Provisions are project specific and should not be used from project to project unless very similar situations exist and a Change Order has been prepared and approved.

AUTHORIZATION TO PROCEED WITH EXTRA WORK

(Form C-107)

Form C-107 is used to obtain the necessary approval to proceed with extra work when time does not permit use of normal procedures due to an emergency situation. This procedure does not eliminate the need for processing a Change Order. The Change Order should be prepared within two weeks from the date the Project Engineer signs the C-107. Attach the C-107 with original signatures to the Change Order.

- A. The Project Engineer should print out copies of the form and carry it with them at all times. When an emergency occurs requiring extra work, the Project Engineer should complete the form by hand.
- B. Data to be entered in each block of the form is self-explanatory. The information entered under "Nature of and Reason for Proposed

Revisions” should be as detailed as possible and will normally be sufficient to support the Change Order when submitted.

- C. Verbal approval is required from the Project Manager before proceeding with the emergency work. Also, if it is a major change, verbal approval is required from the Federal Highway Administration for Non-stewardship projects and Region Construction Engineer for Stewardship projects.
- D. Written approval is required from the Region Construction Engineer (Stewardship Projects) or Federal Highway Administration (Non-Stewardship Projects) prior to proceeding with any change or extra work which would alter the terminal, scope, or character of the project; or work that would fall into the “major category”, except in emergency or unusual situations as provided in 23 CFR 635.121(b).

COST ANALYSIS or ITEMIZED STATEMENT

([Form C-103](#)(short form)

([Form C-103A](#) (Long Form) or

(Approved Format [Figure 10-2](#))

A Cost Analysis is used to justify unit prices exceeding 10% of previous year's Average Unit Bid Price or to estimate the cost of performing additional work on a force account basis.

An Itemized Statement is used to document the completed work performed on a force account basis.

There are currently two acceptable methods for completing a Cost Analysis or Itemized Statement: (1) Use Form C-103 (short or long) which will automatically calculate line items and totals, or (2) Use the approved format (Figure 10.2).

NOTE: When preparing these forms refer to the Standard Specifications and Special Provisions for the Contractor's markup for Labor (60 percent), Material (15 percent), and Equipment costs (no markup unless rented or leased) or prime Contractor's markup for subcontracted work (10 percent for the first \$5,000 and 5 percent for the balance in excess of \$5,000).

Form C-103 - Cost Analysis (for estimating cost of work for items exceeding 10 percent of the previous year's average bid price or work to be accomplished on a Force Account basis)

- A. Place a **U** mark in the Cost Analysis box.
- B. Enter the project number, location and Contractor's name as they appear in the original contract.
- C. Enter the Change Order number.

LABOR:

All labor, including direct supervision used in the actual and direct performance of the work, will be paid at the rate of wage (or scale) agreed upon in writing before beginning work.

For Force Account Work, the Contractor will be reimbursed for actual cost paid to, or in behalf of workers, including subsistence for travel allowances, health and welfare required by collective bargaining agreements or other employment contract generally applicable to the classes of labor employed on the work. An amount equal to 60 percent of the sum of the above items will be paid to the Contractor to cover the cost of bonds, insurance, taxes, etc. The Contractor's payroll and cost records can be inspected and audited by the Project Engineer.

- A. Enter the following information:
 - 1. Classification(s) for all required workers estimated to complete the force account work.
 - a. Make sure the classifications are correct for the type of work to be performed and in agreement with the wage decision for the contract.
 - 2. Appropriate pay rate for each classification as established in the wage decision for the contract.
 - 3. Appropriate fringe benefits for each classification as established in the wage decision for the contract.
 - 4. Estimated regular hours of work for each classification.
 - a. Regular hours are defined as: Hours worked from the beginning of the work week up to 40 hours.
 - 5. Overtime hours in the box provided.
 - a. Hours worked over 40 must be approved by the Project Engineer and are paid as overtime.

FIGURE 10-2

Project S-0994(7)
From Cloudy Ridge to Shingle Creek
I. M. Doing, Contractor

COST ANALYSIS

(Can also be used as an Itemized Statement)

Salvage and Relay 42" CSP and Install Metal End Sections

LABOR:

Foreman (Oper Eng.)	4 hrs @ \$ 5.39	\$ 21.56
Backhoe Operator	3 hrs @ 5.88	17.64
Laborer	4 hrs @ 4.075	16.30
Laborer	2 hrs @ 4.075	8.15
Sub-Total		\$ 63.65
Health, Welfare & Pension Benefits:		
Operators	7 hrs @ 1.39	9.73
Laborer	6 hrs @ .44	2.64
Sub-Total		\$ 12.37
Plus 60% of 76.02		45.61

Total Labor

\$121.63

MATERIAL:

42" Metal End Sections	2 ea @ \$21.05	\$ 42.10
42" CSP Bands	2 ea @ 3.25	6.50
Sub Total		\$ 48.60
State Sales Tax	6.025% of \$48.60	2.93
Plus	15% of \$51.53	7.93

Total Material

\$ 59.46

EQUIPMENT:

Backhoe Tractor Mounted	3 hrs @ \$ 9.50	\$ 28.50
Truck, Pickup	2 hrs @ 2.40	4.80

Total Equipment

\$ 33.30

GRAND TOTAL

214.39

NECESSITY FOR WORK:

(Refer to Attachment A)

6. To calculate the labor amount, use this formula:
 $(\text{base rate} + \text{frng.}) \times \text{reg. hrs.} + (\text{base rate} \times 1.5 \times \text{O/T hrs.}) + (\text{frng.} \times \text{O/T hrs.})$
7. Total each line item and the total amount column.
8. 60 percent is added to the total amount as per section 109.4.1 of the Standard Specifications.

MATERIALS:

All materials accepted by the Project Engineer and incorporated into the project will be paid at the actual cost including sales taxes and transportation charges plus 15 percent.

- A. Enter the following information:
 1. Description of the estimated materials.
 2. Estimated quantity.
 3. Unit of measurement.
 4. Estimated rate of payment.
 5. Appropriate sales tax percentage.
 6. To calculate the materials amount:
 $(\text{quantity} \times \text{rate}) + \text{sales tax}$
 7. Total each line item and the amount column.
 8. 15 percent is added to the total amount as per section 109.4.2 of the Standard Specifications.

EQUIPMENT:

Contractor owned equipment (*excluding small tools) authorized by the Project Engineer will be paid for by using the latest edition of the Data Quest Rental Rate Blue Book for Construction.

*Small tools are defined as tools generally costing less than \$400.00.

The equipment rates require adjustments by a Regional Factor and a Depreciation Factor found in the front of each section in the Rental Rate Blue Book.

Equipment rental rates can fall in the following two categories:

- A. Operating Rate - The hours the equipment is actually in use. Includes ownership and operating cost. Adjust for depreciation using Rate Adjustment Table and Region using the Regional Adjustment Maps.
- B. Standby Rate - Compensation for equipment required to be at the work site but not operating. Includes ownership costs only. This rate will be 50% of the adjusted ownership cost computed in the previous paragraph. The duration of allowable standby time is to be approved in writing by the Project Engineer with a maximum of 8 hours per day or 40 hours in a normal work week.

When the "Manufacturer's Rated Capacity" falls between those shown in the Rental Rate Blue Book, the closest will be used. Do not interpolate for the rates between.

1. Enter the following information from Equipment Rental Rate Manual.
 - a. Section and Page.
 - b. Revision Date.
 - c. Equipment Designation.
 - d. Year (From Contractor or check the serial number on the equipment).
 - e. Capacity/Horsepower.
 - f. Fuel Type.
 - g. Regional Factor (Found in front of each section)
 - h. Depreciation Factors (Found in front of each section)
 - i. Hourly Rate (Monthly rate/176)
 - j. Attachment Rate (Monthly rate/176)
 - k. Operating Cost
 - l. Total each line item and the amount column.
 - m. Add Mobilization Cost for equipment not already on the project. Refer to [Standard Specifications 109.4.3](#).
2. Subtotal labor, materials and equipment.
3. Add percentage for subcontracted work per [Standard Specifications, 109.4.5](#).

4. Grand Total for labor, materials and equipment.

[Form C-103](#) - Itemized Statement (for documenting the actual work performed on a force account basis).

1. Place a **U** mark in the Itemized Statement box.
2. Enter the project number, location and Contractor's name as they appear in the original contract.
3. Enter the Change Order number.

LABOR:

All labor, including direct supervision used in the actual and direct performance of the work, is paid according to the Force Account Change Order.

- A. Enter the following information from [Form C-104](#)

1. All Classifications of work performed.
 - a. Make sure the classifications are correct for the type of work performed and in agreement with the wage decision or collective bargaining agreements and the Force Account Change Order.
2. Appropriate pay rate for each classification as established in the wage decision for the contract or collective bargaining agreement.
3. Appropriate fringe benefits for each classification as established in the wage decision for the contract or collective bargaining agreement.
4. Regular hours of work for each classification.
 - a. Regular hours are defined as: Hours worked from the beginning of the work week up to 40 hours.
5. Overtime hours in the box provided.
 - a. Hours worked over 40 are approved by the Project Engineer and paid as overtime.
6. To calculate the labor amount use this formula:
$$(\text{base rate} + \text{frng.}) \times \text{reg. hrs.} + (\text{base rate} \times 1.5 \times \text{O/T hrs.}) + (\text{frng.} \times \text{O/T hrs.})$$
7. Total each line item and the total amount column.

8. 60 percent is added to the total amount as per Section 109.4.1 of the Standard Specifications.

MATERIALS:

All materials accepted by the Project Engineer and incorporated into the project are paid at the actual cost including sales taxes and transportation charges plus 15 percent.

- A. Enter the following information from [Form C-104](#)
 1. Description of the materials.
 - a. Actual materials costs include sales tax and transportation charges. Invoices are required for all materials used. If the materials were furnished from the Contractor's stocks and no invoice is available, a certified affidavit from the contractor is acceptable.
 2. Quantity of material used.
 3. Unit of measurement ascertained from invoice or affidavit.
 4. Rate of payment ascertained on invoice or affidavit.
 5. Appropriate sales tax percentage ascertained on invoice or affidavit.
 - a. Check invoice or affidavit to ensure Contractor paid sales tax.
 - 6.. To calculate the materials amount:
(quantity X unit price) + sales tax
 7. Total each line item and the amount column.
 - 8.. 15 percent is added to the total amount as per [Section 109.4.2](#) of the Standard Specifications.

EQUIPMENT:

Contractor owned equipment (*excluding small tools) authorized by the Project Engineer will be paid for using the latest edition of the Data Quest Rental Rate Blue Book for Construction.

*Small tools are defined as tools generally costing less than \$400.00.

The equipment rates require adjustments by a Regional Factor and a Depreciation Factor found in the front of each chapter in the Rental Rate Blue Book.

Equipment rental rates can fall in the following two categories:

1. Operating Rate - The hours the equipment is actually in use. Includes ownership and operating cost. Adjust for depreciation using Rate Adjustment Table and Region using the Regional Adjustment Maps.
2. Standby Rate - Compensation for equipment required to be at the work site but not operating. Includes ownership costs only. This rate will be 50 percent of the adjusted ownership cost computed in the previous paragraph. The duration of allowable standby time is to be approved in writing by the Project Engineer with a maximum of 8 hours per day or 40 hours in a normal work week.

When the "Manufacturer's Rated Capacity" falls between those shown in the Rental Rate Blue Book, the closest will be used. Do not interpolate for the rates between.

A. Enter the following information from [Form C-104](#)

1. Classification (Make, Model & Year, Horsepower/Capacity, Fuel Type, Attachments). Refer to the Rental Rate Blue Book for information needed on classification.
2. Hours Operated.

A. Enter the following information from Equipment Rental Rate Manual.

1. Section and Page.
2. Revision Date.
3. Regional Factor (Found in front of each section)
4. Age Factor (Found in front of each section)
5. Hourly Rate (Monthly rate/176)
6. Attachment Rate (Monthly rate/176)
7. Operating Cost
8. Total each line item amount and total the amount column.
9. Add Mobilization Cost for equipment not already on the project. Refer to the Standard Specifications.

C. Subtotal labor, materials and equipment.

- D. Add percentage for subcontracted work per [Standard Specifications, 109.4.5.](#)
- E. Grand Total for labor, materials and equipment.
- F. Quantities of Work Performed - explain what work was accomplished under this agreement that will justify the expenditure of funds on a separate page and attach to the Itemized Statement.

WEEKLY FORCE ACCOUNT COST REPORT ([Form C-104](#))

Form C-104 is required in connection with all work accomplished on a Force Account basis or for documenting work involving a possible claim. The record of work must be completed daily by the assigned Inspector.

LABOR:

Specific attention must be paid to the "Actual Job Classification". This should reflect the actual type of work on which the personnel are doing on the Force Account work. This will then be checked against the Contractor's payrolls to insure the workers received at least the minimum rate of pay commensurate with the work they were performing. Hours worked must agree with the contractor's payroll. All rates of pay in excess of the minimum set forth in the contract wage decision or collective bargaining agreements for the type of work being accomplished must be specifically justified and approved by the Project Engineer. For example, the Contractor may find it convenient to use an employee in a higher wage classification to temporarily serve as a laborer or truck driver during the course of some of the Force Account work and continue to pay the higher wage rate during this period. The wage rates agreed to in writing by the Contractor and the Project Engineer prior to the start of work will govern the wage rate by which the Contractor will be reimbursed for this type of work and not necessarily the wage rate paid the employee. Wages in excess of the going rates should be paid only upon approval of the Project Engineer; otherwise, regular wage rates will be used as a basis for paying the Contractor.

EQUIPMENT:

Only pay for equipment required and directly used in conjunction with Force Account work. Equipment rental rates used will be those set forth in the current equipment rental rate book. Any other rates will be approved by the Construction Division. Equipment used should be based upon need rather than convenience. The Contractor should be reimbursed on the basis of equipment available on the project site during the course of construction. For example, if the Contractor chooses to use a 6 cu. yd. front-end loader because it is standing idle when a 3/4 cu. yd. front-end loader would have

been as effective, the lower rates should be used. It is better to agree in writing prior to the start of work as to the type of equipment to be used and reimbursement will only be for the size of equipment actually required and available at the construction site.

The use of a pickup truck by a Foreman or Superintendent is considered normal when the work being done is an ordinary contract item. When Force Account work is being done, the use of a pickup truck is limited to involvement in the Force Account work. Payment for equipment is based upon necessity to complete the work and not having equipment at the work site that is not actually performing a portion of the work. In the event the individual to whom the truck is assigned must utilize the vehicle to properly supervise the work due to the area involved, or to haul materials to be incorporated into the work, then payment is justified. If the vehicle is required to standby in the event it is needed to go for materials, etc., then payment on a standby basis would be appropriate. However, where the total work is at one location and the pickup is driven to that location and parked while the work is accomplished, payment is not justified. The exception to this would be where the individual must travel to the location of the work for the sole purpose of performing Force Account work and the individual driving the vehicle would not have been on the project except for the Force Account work. In these cases, payment for the period the vehicle was in travel status could be justified as well as on a standby basis during the period work was being performed. The exercise of sound judgment will reduce the cost of doing the work and still properly reimburse the Contractor for work completed.

Upon completion of the Weekly Summary of Force Account Work, **Form C-104** is to be signed with the titles and date by the State Inspector and the Contractor's representative. These properly executed forms then become a permanent document supporting Force Account work. The forms are bound and submitted with the final estimate.

Any changes on these forms which affect the final pay amount will be initialed and explained either on the face of the form or on the reverse side when additional space is required.

FIGURE 10-1

ALPHA CODE DESIGNATION OF CHANGE ORDERS	
GROUP 1	ANTICIPATED SUPPLEMENTAL CONTRACT WORK
A	Assist. to State (Test Piling, Fill Settlements, Surveying, Test Borings)
B	Overruns/Underruns
C	Disadvantaged Business Enterprises (FHWA Program)
D	Environmental Controls (Erosion/Biotic Protection)
E	Railroad Inspection & Flagging
F	Research Projects, Product Testing and Reviews
G	Right-of-Way Obligations (Utilities/Driveways/Walls, Etc.)
H	Temporary Traffic control (Signs, Signals, Flagging, Striping & Detours)
I	Miscellaneous Minor Supplemental Work (As Listed in Detailed Estimate of Cost)
J	Partnering
GROUP 2	GENERAL ADDITIONS/DELETIONS/ADJUSTMENT
A	Management Decisions/Policy Revisions/Project Accelerations
B	Changes/Revisions in Standard Plans & Details
C	Hydraulics/Drainage Changes
D	Landscaping Changes, Including Irrigation
E	Product/Materials Specification Changes
F	Roadway Structural/Geometric Revisions
G	Roadway Lighting/Signals/Graphics
H	Structure Revisions
I	Miscellaneous Adjustment of Costs/Time Accrued Interest on Uncontested Delayed Payments Change in Asphalt binder Content Adjustments for Price Index Fluctuations Liquidated Damages
GROUP 3	UNFORESEEN OCCURRENCES/DIFFERING SITE CONDITIONS
A	Accidents/Spills & Hazardous Materials
B	Acts of Nature (Rain, Storms, Floods, Earthquakes, Etc.)
C	Buried Man-Made Objects/Underground Utilities
D	Constructed Embankment/Fills/Slope Failures
E	Regulatory Agency Requirements/Actions
F	Termination of Contract Standard Specifications, 108.10 or 108.11
G	Unanticipated Geotechnical Conditions
GROUP 4	DIFFERENCES/CONFLICTS IN THE CONTRACT DOCUMENTS
A	Right-of-Way Delays
B	Design Error/Omission/Conflict
C	Specification Error/Omission/Conflict
D	Construction Error/Omission Conflict

E	Inadequate Traffic Clearances (Vertical/Horizontal)
GROUP 5	SETTLEMENT OF CLAIMS AND DISPUTES
A	Interpretation of Specifications
B	Interpretation of Plans/Drawings
C	Contract Time
D	"Changed Conditions"
E	Delays in the Work
F	Negotiated Board of Review/Arbitrator Settlements
GROUP 6	COST REDUCTION INCENTIVE PROPOSALS/ALTERNATIVE DESIGN
A	Structures Design
B	Traffic/Roadway Geometrics
C	Roadway Design, Drainage, Etc.
D	Materials & Material Sources
E	Construction Procedures
F	Temporary Traffic Controls, Detours, Falsework Openings

ORIGINATOR CODE DESIGNATIONS (Division/Section/Position that could have taken some action to prevent need for Change Order)			
1	Design (UDOT/Consultant)	8	Construction Division
2	Traffic	9	Local Government
3	Structures	10	Consultant
4	Materials	11	Contractor
5	Right-of-Way	12	Environmental
6	Project Engineer	13	Utilities
7	Maintenance	14	Project Manager

- E. Check the appropriate basis of payment box that applies to the Change Order.
1. Original Contract Unit Price is **U**marked when the items and unit prices included in the Change Order are in the original contract.